

PROCESSES AND PROPERTIES																									
<p>Influence of admixture of cellulose nitrate on the properties of acetate films. J. D. Coddman and L. J. Brown. <i>Plastic Acetate Chem. Ind.</i> (U.S.S.R.) 1935, No. 10, p. 10. Film bases made of a cellulose nitrate-acetate mixture are more resistant than pure cellulose acetate bases, especially in wet folding. The optimum mechanical properties are obtained when the ratio is 30% nitrate. The swelling of mixed bases is an additive property and is calculated from the swelling of the pure nitrate and acetate films. The rate of burning is a linear function of the cellulose nitrate content in the base but is also very dependent upon the nature of the plasticizer used. The temperature of decomposition is constant through the range of 100-100% cellulose nitrate. For mixtures of 10% and below, it increases in proportion as the content of the cellulose nitrate diminishes. Bases containing less than 50% of cellulose nitrate do not spontaneously catch fire in the presence of a gas lamp, even when no water cell is used. C. L. K. Allen.</p>																									
<p>ASA-SEA METALLURGICAL LITERATURE CLASSIFICATION</p>																									

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PROCESSING AND PROPERTY INDEX			
2		5	
<p>The composition of cellulose nitrate films. F. S. Sherman and A. Yu. Gindman. <i>Kosmopolitizm</i>. <i>Prin.</i> 6, No. 7, 29-34 (1940).—S. and G. compare the composition of Soviet, Agfa and du Pont films. The different components of the films are detd. as follows: Cellulose nitrate is pptd. in H_2O from a 5% acetone soln. Then the plasticizer is removed with a mixt. of EtOH and petr. ether and the residue dried to const. wt. The camphor is detd. by Zueva's method (C. A. 35, 24409) by dissolving the base in a pure alc. soln. of NaOH, distn. of the camphor and pptn. as the dinitrophenylhydrazide. The residual solvents are not detd. by the usual boiling of the film base in H_2O and distn. of the solvents, because this also removes the camphor and high-boiling alcs. S. and G. suggest, instead, plotting curves of the loss of wt. by drying and detn. of the alc.-H_2O moisture by A. A. Shmidt's method using $CaCl_2$ in a very small space to absorb alc. and H_2O but not acetone and acetates. The amt. of cellulose nitrate and N found in du Pont and Agfa films was much greater than the corresponding amts. in Soviet films. The stability of all films was within permissible limits. The ash content of du Pont and Agfa films was generally lower than that of Soviet films. The viscosity of Agfa film was the same as that of film made in Soviet factory No. 5 but higher than that of films made by du Pont and Soviet factory No. 6. The polydispersion of foreign films was much lower than that of Soviet films, but this is probably due to the higher quality of the linters and the more perfect production methods of the former.</p> <p>W. R. Fickler</p>			
<p>ASH-ILA METALLURGICAL LITERATURE CLASSIFICATION</p>			
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Shurman, F. S.

Grad Chem Sci

Dissertation: "Investigation of the Solubility of Fibrous Triacetates of Cellulose
and Products of Their Partial Heterogeneous Saponification."

16 June 49

All-Union Sci Res Inst of Cinematography

SO Vecheryaya Moskva
Sum 71

CA

Heterogeneous hydrolysis of triacetylcellulose (L.S. Shorin and I. O. Gol'dman (Cm. Photo Inst., Moscow) *Zh. Prikl. Khim.* 25, 81 (1952). Partial hydrolysis of cellulose triacetate by HNO_3 at room temp. causes a significant depolymerization of the substance. The product obtained from the production type of fibrous triacetate made in U.S.S.R. is not completely soluble in Me_2CO . The hydrolysis is carried out with 10 parts HNO_3 and runs of up to 90 hrs. duration showed that most of the reaction occurs within 72 hrs. The viscosity of the product changes very little during the reaction. The product can be reacylated and the process repeated several times without appreciable change in viscosity (i.e., degree of polymerization). Products with 55-80% acetate groups swell very considerably in acetone and dissolve in part. Separation of the sol part is impossible by the technique used (G. M. Kosolapoff).

CA

23

Solubility of acetylcellulose in acetone. P. V. Koslov and E. S. Sherman. *Zhur. Priklad. Khim.* (J. Applied Chem.) 25: 381-81 (1952). —Cellulose acetates with 32-8% Ac groups (prepd. by homo- and heterogeneous conditions of acetylation and subsequent hydrolysis were examd. as to their solv. in Me_2CO . The solv. is detd. largely by the mol. wt. (i.e., extent of polymerization). Secondary acetates, prepd. by homogeneous esterification and hydrolysis, show lower than normal mol. wt. owing to depolymerization and, hence, higher solv. Products formed in heterogeneous conditions under mild conditions show only partial solv. owing to the presence of varying amts. of low-mol. wt. products. Their depolymerization causes appearance of complete solv. in Me_2CO . Results are cited for numerous grades of native (U.S.S.R.) and imported cellulose acetates. G. M. K.

SHERMAN, F. S.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Cellulose and Paper

②
Solubility of acetylcellulose in acetone; P. V. Kozlov
and F. S. Sherman, *J. Appl. Chem. U.S.S.R.* 25, 431-9
(1953) (Engl. translation).—See *C.A.* 46, 7325g.

H. L. H.

4-17-54

SHERMAN, F. S., GOL'DMAN, I. S.

Cellulose triacetate

Heterogeneous hydrolysis of cellulose triacetate. Zhur. prikl. khim. 26 no. 1 (1952)
Vsesoyuznyy Nauchno-Issledovatel'skiy
Kino-Fotoinstitut. Moskva

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

SHERMAN, F. S.

Solubility of fibrous cellulose triacetate and products of
its partial heterogeneous saponifications in mixtures of
methylene chloride with alcohols. F. S. Sherman and P. V.
Kozlov. *J. Appl. Chem. U.S.S.R.* 20, 485-90 (1953) (Engl.
translation).—See C.A. 47, 10839d.
H. L. H.

SHERMAN, F.S.; KOZLOV, P.V.

Solubility of fibrous cellulose triacetate and products of its partial heterogeneous saponification in mixture and methylene chloride with alcohols.
Zhur. Priklad. Khim. 26, 524-31 '53. (MLRA 6:5)
(CA 47 no.20:10839 '53)

SHERMAN, F.S.

*Photo
Sherman*

44728* (Russian.) Physico-Chemical Properties of Triacetate
Movie Film and Film Bases at Elevated Temperatures. Fiziko-
mekhanicheskie svoystva triacetatnoi kinoplenki i osnovy
pri povyshennykh temperaturakh. F. S. Sherman, B. N.
Korostylev, and I. M. Fridman. Tekhnika Kino i Telekul'tura,
no. 2, Feb. 1957, p. 54-58.

Tear resistance of triacetate film materials decreases with rising
temperature to a greater extent than that of film materials based
on nitrocellulose.

PM

all copy

AUTHOR: Sherman, F.S. SOV 77-3-4-18/23

TITLE: New Synthetic Materials as a Base for Photographic Films
(Novyye sinteticheskiye materialy dlya osnovy fotograficheskikh plenok)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 4, pp 295-299 (USSR)

ABSTRACT: The article deals with the process of using polycarbonates as backing material for films, developed and put into practice by the "Farbenfabriken Bayer", GFR, Chemical formulae for the polycarbonates used are listed and the physical properties of films using the various polymers are presented in tabular form. There are 3 tables and 5 references, 1 of which is Soviet, 1 German and 3 English.

1. Photographic films--Materials 2. Carbonates--Applications
3. Polymers--Applications

Card 1/1

S/187/63/000/002/001/004
A004/A126

AUTHORS: Timofeyeva, V. G., Sherman, F. S., Podgrodetskiy, Ye. K.

TITLE: Investigating relaxation processes in triacetate films

PERIODICAL: Tekhnika kino i televideniya, no. 2, 1963, 21 - 26

TEXT: The authors investigated the relaxation in nonplasticized cellulose acetate films with different contents of combined acetic acid and at different degrees of tension and temperature. It was found that the cellulose acetate composition affects the relaxation process. The higher the amount of hydroxyl groups in the cellulose acetate, the more difficult is the relaxation process. Then the relaxation process in plasticized films of partially saponified cellulose triacetate was studied at different temperatures and tensions. It was found that the type of plasticizer added to the film affects its macrostructure. Plasticizers of low activity result in a greater reduction in tension under temperature effects than do films without plasticizers. If active plasticizers are added to the film composition, inner stresses resulting from heating due to the effect of loads are more easily removed. Such a film, after relieving the stresses, is in an equilibrium state and is subjected to a minimum shrinkage after watering. To produce

Card 1/2 .

Investigating relaxation processes in...

S/187/63/000/002/001/004
A004/A126

film bases with such properties, the drying portion of the casting machine should be equipped with devices allowing accurate control of the base tension. Besides, it is necessary to increase the temperature in the final zones of the drying portion of the casting machine up to 120°C. There are 4 figures and 3 tables.

Card 2/2

ZELIKMAN, V.L.; SHERMAN, F.S.; DMITRIYEVA, V.A.; KONDRAT'YEVA, Ye.B.

Use of the diffusometric method for determining the sharpness of the photographic image in the manufacturing technology of thin-layer motion-picture films. Usp.nauch.fot. 10:221-229 '64.

(MIRA 17:10)

SHERMAN, G. I.

PA 55/49T37

USSR/Electricity
Generators
Saturation Curves

May 49

"Determination of the Operational Characteristics of Synchronous Generators, Allowing for Saturation," G. I. Sherman, Cand Tech Sci, 4 pp

"Elektrichestvo" No 5

Describes shortcomings of Potier, Cray, and other methods of determining saturation curves of synchronous generators. Operating diagrams for synchronous generators have been insufficiently developed to date. Considers in some detail

55/49T37

USSR/Electricity (Contd)

May 49

the coefficient of saturation and operating diagrams. Submitted 7 Aug 48.

55/49T37

SHERMAN, I.

Unsolved problems of transportation law. Rech. transp. 20 no.5:
14-16 My '61. (MIRA 14:5)

1. Glavnyy yuriskonsul't Kamskogo rechnogo parokhodstva.
(Inland water transportation—Law and legislation)

SHEVCHENKO, N.F.; SHERMAN, I.L.; MUZYCHENKO, S.V.; SHEVCHENKO, M.G.,
tekhn.red.

[Results of the socialist development of the Ukraine in the
first ten years of Soviet rule] Itogi pervogo desiatiletia
sotsialisticheskogo stroitel'stva na Ukraine. Khar'kov,
Khar'kovskoe obl.izd-vo, 1957. 105 p. (MIRA 12:12)
(Ukraine--Economic conditions)

SHERMAN, I.Ye.; GRIGOR'YEV, V.N.

Small-scale mechanization in the woodworking shop. Der. prom. 6
no.10:23-24 0 '57. (MIRA 10:1F)

1. Leningradskiy vagonostroitel'nyy zavod im. I.Ye. Yegorova.
(Railroads--Cars--Construction) (Woodwork)

Sherman, I. Ye.

SHERMAN, I. Ye.; TIMOSHENKO, Ye. Ye.

Efficient method for making moldings. Der.prom. 6 no. 12:24-25
D '57. (MIRA 10:12)

(Woodworking machinery)

Sherman, I. Ye.

28-58-2-27/41

AUTHORS: Timoshenko, Ye.Ye., and Sherman, I.Ye., Engineers

TITLE: More Precise Specifications for the Standard for Wooden Parts of Railway Cars (*Utochneniya k standartu na derevyannyye detali zheleznodorozhnykh vagonov*)

PERIODICAL: Standartizatsiya, 1958, Nr 2, p 61 (USSR)

ABSTRACT: Amendments are suggested to the "GOST 3191-53" standard for wooden parts of wide-track RR-cars. The amendments concern the working of the rules for wood insets (in spots where knots are taken out); the specifications of plywood and wood panels; the surface finish for soaking with antiseptic paste "Vagonka".

ASSOCIATION: Zavod imeni Yegorova (Plant imeni Yegorov)

AVAILABLE: Library of Congress

Card 1/1 1. Railway cars-Construction-Standards 2. Standardization-USSR

SHERMAN, I.Ye.

Cone shaping of parts on a machine with conveying belts. Der.prom.
8 no.4:23 Ap '59. (MIRA 12:6)
(Woodwork)

SHERMAN, Ye.Ye.; SHERMAN, I.Ye.

Machine for priming and painting wood parts. Der. prom. 8 no.9:
26-27 S '59. (MIRA 12:12)
(Wood finishing)

SHERMAN, I.Ye., inzh.

Drills with circular undercutters. Der.prom. 9 no.2:24
F '60. (MIRA 13:6)
(Drilling and boring machinery)

SHERMAN, I.Ye.

Drill for deep drilling with simultaneous countersinking. Der.
prom. 13 no.7:28 J1 '64. (MIRA 17:11)

SHERMAN, I.Ye.

Combined rose cutter and drill. Der.prom. 14 no.10-87 6 '85.
(MIRA 19:12)

1. Leningradskiy vagonostroitel'skiy zavod im. Yegorova.

PEREL'MAN, I.B.; CHLENOV, L.G.; SHERMAN, I.M.

Temporary ligation of the neuro-vascular bundle of the temporal region as a form of reflex therapy of central cerebral disorders in hypertension. Klin. med., Moskva 30 no.9:81-89 Sept 1952. (CLML 23:2)

1. Doctor Medical Sciences for Perel'man; Professor for Chlenov. 2. Of the Institute of Neurology of the Academy of Medical Sciences USSR (Director -- Prof. N. V. Konovalov, Active Member AMS USSR).

SHERMAN, L.M.

ZHIMUNSKAYA, Ye.A.; SHERMAN, L.M.

Electrical activity of the brain in hypertension during provisional
ligature of the neurovascular bundle of the temporal lobe. Klin. med.
32 no.7:37-42 J1 '54. (MLRA 7:8)

1. Iz Instituta neurologii (dir.-deystvitel'nyy chlen AMN SSSR prof.
N.V.Konovalov) Akademii Meditsinskikh nauk SSSR.

(HYPERTENSION

EEG after temporary interruption of neurovasc. bundle of
temporal lobe)

(TEMPORAL LOBE

temporary interruption of neurovasc. bundle, eff. of EEG
in hypertension)

(ELECTROENCEPHALOGRAPHY, in various diseases

hypertension, eff. of temporary interruption of neurovasc.
bundle of temporal lobe)

RUDERMAN, A.I.; SHERMAN, L.M.

Clinical roentgenologic investigations of the efficacy of a temporary ligation of the neurovascular bundle of the temporal region in gastric and duodenal ulcer. Biul. eksp.biol. i med. 37 no.4:30-34 Ap '54. (MERA 7:7)

1. Iz rentgenodiagnosticheskogo otdeleniya (sav. prof. I.A.Shekhter)
TSentral'nogo nauchno-issledovatel'skogo instituta rentgenologii
i radiologii imeni V.M.Molotova (dir. prof. P.D.Yal'tsev)
(PEPTIC ULCER, surgery,
*temporary neuro-vasc. ligation of temporal region)

EXCERPTA MEDICA Sec.9 Vol.11/5 Surgery May 1957
SHERMAN L. M.

2737. SHERMAN L. M. Hosp. Medpiyavka. * Temporary ligation of the neurovascular bundle of the occipital region as a useful procedure in the 'reflex' therapy of varicose ulcers of the leg (Russian text) KLIN. MED. (Mosk.) 1955, 33/3 (91)

Phlogistic manifestations of varicose veins with thrombophlebitis complications can well bring about irritation of the CNS with a re-awakening of pathological reactions that translate themselves into ulcerations. Basing himself on the fact that varicose ulcers may be reactivated by means of a complex reflex action, the author has conceived a method consisting of a reflex generating therapy by means of a temporary ligation of the neurovascular bundle of the occipital region. The author has observed 15 cases undergoing ambulatory treatment for a period of 2 to 10 yr. Eleven patients were afflicted with chronic thrombophlebitis of superficial veins, while in 4 the deep veins were involved. Favourable results with this therapy included 11 out of 15 patients treated over a period of 10-14 days. Complete disappearance of the varicose ulcers and the pain occurred in 8; in 4 the period of follow-up was 16 months, and in 4, about 2-10 months. In 3 cases the ulcers did not heal completely, and in 4, the therapy proved useless. The author has noted a rise in superficial temperature of 0.2 to 8° in cases undergoing this form of therapy. On the positive side of the method is first of all its simplicity of execution without interrupting the work or other activities of the patients.

Parenti - Ferrara

RUDEMAN, A.I.; ZAYRAT'YANTS, V.B.; SHERMAN, L.M.

Weakening of local radiation reactions. Med.rad. 1 no.6:61-65
N-D '56. (MLRA 10:2)

1. Iz rentgenoterapevticheskogo (rukovoditel' - prof. L.D.Podlya-
shchuk) i patomorfologicheskogo (rukovoditel' - chlen-korrespondent
AMN SSSR zasluzhennyy deyatel' nauki prof. B.N.Mogil'nitskiy) otdeleniy
Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii i
radiologii imeni V.M.Molotova.

(RADIATION, inj. eff.

ionizing radiations causing wds. in white rats, eff. of
ligatures on healing)

(WOUNDS AND INJURIES, exper.

induced by ionizing radiations in white rats, eff. of
ligatures on healing)

BALABAN, I.M., inzhener; FRENKEL', P.M., inzhener; SHERMAN, L.N., arkhitekt

Bearing structures of industrial buildings having roofs made of
corrugated asbestos cement slabs. Stroi.prom.25 no.1:9-11 Ja'47.
(MIRA 8:12)

1. Promstroyproyekt
(Structural frames) (Roofs)

ANDRES, L.M., inzhener; SOKOLOV, P.N., inzhener; SHERMAN, L.N., arkhitekt

Selecting optimum parameters for corrugated asbestos cement slabs
used for walls and roofs of buildings and structures. Stroi.prom.
25 no.1:13-15 Ja'47. (MLRA 8:12)

1. Promstroyproyekt (for Andres and Sherman).
(Asbestos cement) (Walls)

SHERMAN, I.N., laureat Stalinskoy premii, arkhitektor; OVSYANKIN,
V.I., laureat Stalinskoy premii, arkhitektor; FRENKEL',
P.M., inzhener; PERSON, M.N., tekhnicheskii redaktor.

[Asbestos cement enclosure sheets for industrial buildings]
Ograzhdaushchie konstruktsii iz asbestotsementnykh listov
dlia promyshlennykh zdani. Moskva, Gos. izd-vo lit-ry po
stroitel'stvu i arkhitekture, 1952. 326 p. [Microfilm]
(Asbestos cement) (MLRA 7:12)

SHERMAN, L. N.

AID P - 515

Subject : USSR/Engineering

Card 1/1 Pub. 93 - 2/12

Author : Sherman, L. N., architect, Recipient of Stalin Prize

Title : Construction of machine and tractor repair shops for
machine and tractor service stations

Periodical : Sbor. mat. o nov. tekhn. v stroi., 6, 3-8, 1954

Abstract : A master plan and construction details of repair shops
for MTS are described. The plan was worked out by the
State Institute for the Planning of Agricultural Con-
struction. 5 diagrams.

Institution : None

Submitted : No date

SHERMAN, L.N., arkhitekto, laureat Stalinskoy premii.

~~Stroi.prom.32 no.1:4-9 Ja '54.~~
Mass production plans for machine-tractor station buildings.

Stroi.prom.32 no.1:4-9 Ja '54.

(MLRA 7:2)

1. Promstroyproyekt. (Buildings, Prefabricated)
(Machine-tractor stations)

BORISHANSKIY, M.S., kandidat tekhnicheskikh nauk; GVOZDEV, A.A., professor,
doktor tekhnicheskikh nauk; MIZERNYUK, B.N., inzhener; NIKITIN, N.V.,
inzhener; SHERMAN, L.N., arkhitektor

Precast reinforced concrete beams developed by the State Planning
Institute of Industrial Construction and the Central Scientific
Research Institute of Industrial Construction. Rats. i izobr.
predl. v stroi. no. 81:20-22 '54. (MIRA 8:6)
(Girders) (Precast concrete construction)

SHERMAN, L.M., arkhitektor, laureat Stalinskoy premii.

Zero-load fixing of external columns and walls to separated axes
of a building. Stroi. prom. 33 no.9:27-29 S '55. (MLRA 9:1)

1. Premstroyproyekt.
(Structural frames)

see below 1:1
SHERMAN, L.N., arkhitektor.

Skylights with supporting glass panels. Stroi. prom. 36 no.1:20-24
Ja '58. (MIRA 11:1)

(Skylights)

SHCHIPAKIN, L.N.; SHERMAN, L.N.

Marking foundations for sinking sectional piles. Stroi. prom. 36 no.1:
43-44 Ja '58. (MIRA 11:1)

(Foundations) (Pile driving)

SHERMAN, L.N., arkhitektor

Experimental plan for redesigning the auxiliary areas of a
foundry. Pism. stroi. 39 no.7:33-35 '61. (MIRA 14:7)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy
institut promyshlennykh zdaniy i sooruzheniy.
(Foundries)

SHERMAN, L.N.

Welfare and cultural services at industrial enterprises. Prom.stroi.
40 no.6:24-28 '62. (MIRA 15:6)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut promyshlennyykh zdaniy i sooruzheniy.
(Employees' buildings and facilities)

SMIRNOV, V.P., inzh., red.; SHERMAN, L.N., arkh., red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroizdat. Pt.2. Sec.M.ch.3. [Auxiliary buildings and installations for industrial enterprises; specifications for planning] Vspomogatel'nye zdaniia i pomeshcheniia promyshlennykh predpriatii; normy proektirovaniia (SNiP II-M. 3062). 1963. 21 p. (MIRA 17:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosstroy SSSR (for Smirnov). 3. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut promyshlennykh zdaniy i sooruzheniy (for Sherman).

LEYPUNSKIY, A. I., KAZACHEKOV, C. D., ARTUKHOV, G. A., BELANOVA, T. S., BARISHNIKOV,
A. I., GAIKOV, V. I., STAVISKIY, Yu. Y., STUMBUR, E. A. and SHERMAN, L. Ye.

"Effective Cross-Section Measurements of Fast Neutron Radiation Capture."

paper to be presented at 2nd UN Intl.' Conf. on the peaceful uses of Atomic
Energy, Geneva, 1 - 13, Sept 58.

Sherman, L. Ye.
AUTHOR: Sherman, L. Ye.

89-1-16/29

TITLE: Determination of the Reaction Cross Section $U^{238}(n,2n)U^{237}$
(Izmereniye secheniya reaktsii $U^{238}(n,2n)U^{237}$)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 87-88 (USSR)

ABSTRACT: By means of a 4π -counting tube the absolute number of β -decay of U^{237} was determined and herefrom the σ -value for the reaction $U^{238}(n,2n)U^{237}$ was determined at $11,24 \pm 1,70$ mb. The uranium sample was irradiated with fast neutrons. There are 2 references, 1 of which is Slavic.

SUBMITTED: August 28, 1957

AVAILABLE: Library of Congress

Card 1/1

Sherman, L. Y.

SOV'84-1-15
 Leypunskiy, A. I., Abramov, A. I., Andreyev, V. K., Buzhomiyaev, A. I., Bondarenko, I. I., Galov, V. I., Golubev, Y. I., Gili'an, A. D., Guseynov, A. G., Katschowsky, O. J., Kozlov, A. I., Krasovarov, M. V., Kuz'minov, S. D., Korotov, V. A., Mikhajlov, M. B., Saifunkin, G. K., Stavitskiy, Iu. A., Ural'tseva, P. I., Usachev, L. K., Fetisov, K. L., Sherman, L. Y.
 Investigations of the Physics of Reactors with Fast Neutrons.11
 (Translated from abstract 6/15)
 Atomnaya energiya, 1958, Vol. 5, nr 3, pp. 284-293 (USSR)

AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:

The reactivity and the kinetics of the reactor were measured. It could be shown that in the center of the active zone the weight of the 5 Mev neutrons is higher by $\sim 13\%$ than that of 250 Mev neutrons. The effective yield of the delayed neutrons in the reactor with a uranium shield exceeds that of a reactor with a copper shield by 1.4 times its amount.

Reactor SM-3;
 The active plutonium zone is the same as in reactor SP-1. In the center of the reactor a water-uranium channel is provided, which is separated from the plutonium zone by a uranium layer

Card 1/9

of 8 cm thickness. The uranium-water lattice consists of cylindrical slugs of normal uranium, which have a diameter of 35 mm. The casing material is aluminum. The ratio between water and uranium is 0.35. The lattice spacing is 30 mm. Measurements carried out with the water-uranium lattice instead of with the pure uranium layer showed:

- 1) The conversion factor is reduced from 2.45 ± 0.10 to 2.7 ± 0.2 .
- 2) In the case of a fixed power output of the active zone the velocity with which the total quantity of plutonium 239 and uranium 235 is formed was increased by 35%.
- 3) The velocity with which plutonium is produced increased by 1.6 times its amount.
- 4) In the case of a fixed power output of the active zone the total power output of the reactor is increased by 2.2 times its amount.

Reactor SM-2:

This reactor was described more in detail in references 12 and 13. Its nominal power output is 120 MW, the maximum output is 200 MW. In the active zone of the reactor SP-2, which consists of plutonium rods, mercury is used as a coolant, which takes up

Card 2/9

$\sim 17\%$ of the total volume of the active zone. The regulating rods (interior of shield) are made from a copper-nickel alloy. The external shield consists of uranium slugs canned with stainless steel. The thickness of the uranium shield is surrounded by copper, the thickness of which is 25 cm. The uranium shield is surrounded by mercury in the active zone leads to a decrease in the content of fast neutrons in the spectrum. The conversion factor was 1.6 ± 0.2 .

Theoretically the kinetic equation for this reactor was calculated by G. I. Marchuk according to the method developed by V. S. Vladimirov. Theoretical calculation of the critical mass was carried out with an error of 4%, and that of the effective multiplication factor with an error of 1%. The effective yield of the delayed neutrons was calculated to amount to 0.4%, while the experimental value was $0.2 \pm 0.04\%$. There are 7 figures, 1 table, and 15 references, 9 of which are Soviet.

Card 3/9

TOPIC/AGE

(b)

International Conference on the Peaceful Uses of Atomic Energy, 24., Geneva, 1958
 vol. 2, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635,

Eds. (Title page): A. I. Akhiezer, Akademicheskij V.I. Vokrug, Akademicheskij and
M. A. Vlasov, Candidates of Physical and Mathematical Sciences; Ed. of this
volume: A. I. Bredner and B. P. Karvitskiy, Candidates of Physical and Mathematical
Sciences; Ed. (Hardcover book): G. I. Belyakov; Ed. (Softcover book): V. I. Pashin.

NOTES: This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 45 papers presented by Soviet scientists at the Second Conference on Nuclear Masses of Atomic Energy, held in Geneva in September 1958.

CONTENTS: It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle acceleration and of cosmic ray physics. The first paper by L.A. Artsimovich presents a review of Soviet work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field.

[illegible]

UNITED STATES OF AMERICA

Reports of Boy's Scientists; Nuclear (Cont.)

Members of Soviet Academies (Cont.)

1947/1948

Shcherbakov, G.B., and A.Ye. Chudakov, *Genetic Ray Studies in the USSR* by Thomas H. Moulton and Stephen D. Drell (1955)

Recommittes mentioned include A.L. Lobodskiy, V.A. Zhurav, P.Y. Zhurav, M.I. Prud'ins, P.L. Golov'ya, N.I. Logachov, P.I. Vukobrat, and N.Ye. Gerasimov.

Lawler, G.D.: Resonance Scattering Caused by Heavy Ions (Report 2299)
Brooker, L.V., A.M. Reider, V.M. Litmanuk, and V.T. Polubny. Spectra of Resonance Scattering of Thermal Neutrons and Distribution of

1. *Journal of Radiation Physics* 21: 221-231 (1969)

Artemyev, A. I., O. B. Maschukovskiy, O. Zh. Artukhov, A. I. Murzhakov,
O. A. Bulanova, V. I. Galinov, Yu. Ya. Stavitskiy, I. A. Stember, and L. E.
Semenov. Measurements of Cross Sections for Neutron Interactions (Report 2219)
D6

21

TOLSTIKOV, V.A.; SHERMAN, L.Ye.; S'AVISSKIY, Yu.Ya.

Measuring the capture cross sections of 5-200 Kev. neutrons for U^{238}
and Th^{232} . Atom. energ. 15 no.5:414-415 N '63. (MIRA 16:12)

L 1926-66 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(m)-2 LJP(c) - JD/MW/JG/DM

ACCESSION NR: AP5023774

UR/0089/65/019/003/0292/0294
539.125.523.5

AUTHOR: Stavitskiy, Yu. Ya.; Sherman, L. Ye.

TITLE: Propagation of resonance-energy neutrons in uranium

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 292-294

TOPIC TAGS: neutron spectrum, neutron capture, uranium, fission cross section, capture cross section

ABSTRACT: The propagation of neutrons decelerated in large thicknesses of copper through depleted metallic uranium was studied. During the experiment, the capture cross sections of several elements (Mn^{55} , In^{115} , I^{127} , Au^{197} , U^{238} , U^{235}) were determined relative to the fission cross section of Pu^{239} from the neutron spectrum formed. The measurements were made in a cavity of the uranium lump and by transmission in a spherical geometry. The integral characteristics of the established spectrum are found to be equal to

$$\frac{\sigma_f(U^{238})}{\sigma_f(U^{235})} = 378 \pm 25 \quad \text{and} \quad \frac{\sigma_f(U^{238})}{\sigma_c(Au^{197})} = 2.74 \pm 0.12.$$

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L 1926-66

ACCESSION NR: AP5023774

The lower value of $\frac{\sigma_f(U^{238})}{\sigma_c(Au^{197})}$ indicates that the neutron spectrum formed in this case is appreciably softer. In general, the spectrum established in metallic uranium is found to be dependent (at least for the thickness employed in practice) on the neutron spectrum of the source. The criterion for the establishment of an asymptotic spectrum with definite characteristics (constancy of the cross section ratio $\frac{\sigma_f(U^{238})}{\sigma_f(U^{235})}$) cannot be considered final, since this ratio is sensitive mainly to the hard region of the spectrum. "In conclusion, the authors thank M. N. Nikolayev for useful comments and the staff attending the BR-1 reactor for assistance." Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 21Jan65

ENCL: 00

SUB CODE: NP

NO REF SOV: 003

OTHER: 002

2/2

SHERMAN, M.E., inzh.

Methods for computing the volume of production and measuring
labor productivity in construction. Trudy TSNIIS no. 34:51-106
'60. (MIRA 13:8)

(Productivity accounting)
(Building--Estimates)

SHERMAN, M.E., starshiy nauchnyy sotrudnik

Improve the index of fulfilling the plan. Transp.stroi. 12
no.10:34-36 0 '62. (MIRA 15:12)

1. Otdeleniye ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo
instituta transportnogo stroitel'stva Ministerstva transportnogo
stroitel'stva.

(Construction industry--Accounting)

SHERMAN M.M.

USSR/Chemical Technology. Chemical Products and their Application. J-12
Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27689.

Author : M.M. Sherman, L.D. Nezhinskaya, M.N. Ortenberg, F.K. Gol'dshteyn.
Inst : Students' Scientific Society, Kharkov Polytechnical Institute.
Title : Drossing Method of Preparing Paste for Manufacturing Ceramic Floor
Tiles.

Orig Pub: Tr. Stud. nauch. o-va. Khar'kovsk. politekhn. in-t, 1956, 1, No 1,
61-65.

Abstract: The possibility of the application of the dross method to the
preparation of paste for manufacturing tiles of the clay from the
Nikoforovsk and Nikolayevsk deposits is considered. It is noted
that this method could be applied in practice, should the filtra-
tion capacity of clays from the above mentioned deposits be in-
creased. The filtration capacity of clays is increased by decrea-

Card : 1/2

-74-

USSR/Chemical Technology. Chemical Products and their Application.
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Ref. Zh.-Kh., No 8, 1957, 27689

sing the viscosity of dross (heating to 50°) and the introduction of dehydrated clay into the dross composition. Besides, the possibility of shortening the duration of the wet milling of clays from 6-7 hours to 2-3 hours at the expense of introducing 1% of sulfite-alcohol vinasse into dross was established.

Card : 2/2

-75-

AUTHOR: Sherman, M.S., Engineer

91-58-5-24/35

TITLE: A Variant of the Suspension of a High-Frequency Choking
Coil (Variant podveski vysokochastotnogo drosselya)

PERIODICAL: Energetik, 1958, Nr 5, pp 25-26 (USSR)

ABSTRACT: High-frequency choking coils, type KZ-500, are used in electric power lines in front of the circuit breakers. The suspension of these choking coils presents several problems. On 110/35 kv and 35/6 kv substations the coil can only be suspended from the wire of the line. The coil weighs 150 kg. If 2 coils are necessary the wire has to carry a weight of 300 kg. In many cases special supporting structures have to be built. If the choking coil is suspended from the wire of the power line, operating conditions are adversely affected. In Figures 1 and 2, a new method for suspending choking coils is proposed. These suspensions facilitate the operation of the power line without necessitating additional structures. There are 2 figures.

AVAILABLE: Library of Congress

Card 1/1 1. Coils - Application

SHERMAN, M.S.

Clamp for suspension of a high-frequency choke.. Energetik 8
no.6:18-19 Je '60. (MIRA 13:7)
(Electric lines--Overhead)
(Electric apparatus and appliances)

SHERMAN, M.S., inzh.

High frequency communication channels in case of partial utilization
of the conductors of electric transmission lines. Energetik 10 no.7:
20-21 JI '62. (MIRA 15:7)

(Electric power distribution)

SHERMAN, M. YA.

PA 153T51

USSR/Engineering - Refractories
Dryers

Nov 49

"Automatization of the Tunnel Driers of the Chamotte
Shops of Krasnogorodskiy Plant imeni Lenin,"
M. Ya. Sherman, Engr, 8 pp

"Ogneupory" No 11

Gen Automatics Lab automatized block of nine driers.
Explains drying operation, and methods employed
for control of moisture, pressure, flow and
temperature of air. Another five blocks are being
automatized during 1949. Designs for serial pro-
duction of low-cost moisture regulator are under
way. Includes seven sketches.

153T51

SHERMAN, M. Ya.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 9E - I

BOOK

Call No.: TN 673.T6

Author: TOPERVERKH, N.I. and SHERMAN, M.Ya.

Full Title: THERMOTECNICAL MEASURING AND REGULATING INSTRUMENTS IN METALLURGICAL PLANTS

Transliterated Title: Teploekhnicheskije izmeritel'nyye i reguliruyushchie pribory na metallurgicheskikh zavodakh.

Publishing Data

Originating Agency: None

Publishing House: State Publishing House on Scientific and Technical Literature on Ferrous and Non-Ferrous Industries.

Date: 1951

No. pp.: 430

No. of copies: 7,000

Editorial Staff

Editor: L'vov, M.A.

Tech. Ed.: Vaynshteyn, E.B.

Editor-in-Chief: None

Appraiser: None

Text Data

Coverage: The book examines controlling, measuring, and regulating devices for the automatic regulation of the heating processes in metallurgical furnaces. Basic information on the assembly and layout of instruments is presented.

Purpose: A textbook for metallurgical students specializing in blast furnace, alloy, and rolled steel processes.

Facilities: Institute of Automatics and Telemechanics of the Academy of Sciences of the USSR, Central Laboratory of Automatics. Koshtyal, Yu.F.,

SHER'AN, M. Ya.

Teplotekhnicheskie izmeritel'nyye i reguliruyushchie Call No.: TN 673.T6
pribory na metallurgicheskikh zavodakh

Maslovskiy, P. M., Gudovshchikov, S. S., Zuts, K. A., Shneerov, Ya. A.,
Makarov, A. N., Fil'tser, G. A. and Zvenigorodskiy, B. M. received
Stalin prizes for their work in introducing automatic regulation
instruments into Marten and blast furnace operation.

No. of Russian or Slavic References: 22

Available: Library of Congress.

2/2

MAKAROV, A.N.; SHERMAN, M.Ya.

[Calculation of throttle valves for measurement and control] Raschet izme-
ritel'nykh i reguliruiushchikh drossel'nykh ustroistv. Moskva, Gos. nauchno-
tekh. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 283 p.

(MLRA 6:9)

(Valves)

ARONOV, Samuil Grigor'yevich; BAUTIN, Ivan Grigor'yevich; VOLKOVA, Zoya Andreyevna; VOLOSHIN, Arkhip Il'ich; VIROZUB, Yevgeniy Vladimirovich; GABAY, Lev Izrailevich, DIDENKO, Viktor Yefimovich; ZASHKVARA, Vasil'y Grigor'yevich; IVANOV, Pavel Aleksandrovich, KUSTOV, Boris Iosifovich [deceased]; KOTOV, Ivan Konstantinovich; KOTKIN, Aleksandr Matveevich; KOMANOVSKIY, Maksim Semenovich; LEYTES, Viktor Abramovich, MOROZ, Mikhail Yakovlevich; NIKOLAYEV, Dmitriy Dmitriyevich. OBUKHOVSKIY Yakov Mironovich; RODSHTEYN, Pavel Moiseyevich; SAPOZHNIKOV, Yakov Yudovich, SENICHENKO, Sergey Yefimovich; TOFOROV, Vasil'y Yakovlevich; CHERMNYKH Mikhail Sergeyevich; CHERKASSKAYA, Esfir' Ionovna, SHVARTS, Semen Aronovich; SHERMAN, Mikhail Yakovlevich; SHVARTS, Grigoriy Aleksandrovich; LIBERMAN, S.S., redaktor izdatel'stva; ANDREYEV, S.P., tekhnicheskoy redaktor

[Producing blast furnace coke of uniform quality; a collection of articles for the dissemination of advanced practices] Poluchenie domennogo koksa postoiannogo kachestva; sbornik statei po obmenu .peredovym opytom. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 300 p. (MLRA 9:8)
(Coke industry)

TOPERVERKH, Nikolay Isaakovich; SHERMAN, Mendel' Yakovlevich; MAKAROV, A.N.,
redaktor; CHELYUSTKIN, A.B., redaktor; MIKHAYLOVA, V.V., tekhnicheskii
redaktor

[Thermal measuring and regulating devices in metallurgy] Teplotekhnicheskie
izmeritel'nye i reguliruiushchie pribory na metallurgicheskikh zavodakh.
Izd. 2-oe, perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po
cherno i tsvetnoi metallurgii, 1956. 606 p. (MLRA 10:1)
(Metallurgy--Apparatus and supplies)

SHERMAN, M.Ya., inzhener.

Automatic correction of consumption gauge indexes. Stal' 16 no.3:
257-259 Mr '56. (MIRA 9:7)

1. Tsentral'naya laboratoriya avtomatiki.
(Gasometers and gasometry)

5(1)

SOV/112-59-3-5626

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 193 (USSR)

AUTHOR: Sherman, M. Ya.

TITLE: Automation of the By-Product Coke Industry
(Avtomatizatsiya koksokhimicheskogo proizvodstva)

PERIODICAL: V sb.: Avtomatiz. khim. i koksokhim. proiz-v. M., Metallurgizdat, 1958, pp 224-248

ABSTRACT: A review of the state of automation in the by-product coke industry and of the objectives of complex automation of processes in the major departments of a coke-and-chemical plant is presented. Fifteen illustrations. Bibliography: 2 items.

Card 1/1

SHERMAN, M. YA.

68-1-5/22

AUTHORS: Virozub, I.V., Voloshin, A.I., Kezmina, V.V., and Sherman, M.Ya.

TITLE: The Control of Thermal Conditions of Coke Ovens (Regulirovaniye teplovogo rezhima koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1958, No.1, pp. 17 - 24 (USSR)

ABSTRACT: Some relationships between various parameters affecting thermal conditions of coke ovens are discussed in order to indicate the basis for choosing some parameters as sources of impulses for the automatic control of the coke oven heating system. UKhIN and TsLA (Central Laboratory of Automation) proposed a system of automatic control of thermal conditions of coke ovens which secures a constant supply of heat and a constant excess of air coinciding at a constant temperature of air in the tunnel, with a constant suction at the top of the regenerators in the ascending stream. The proposed system is described in some detail (Figs. 1 and 2). It was installed on the No. 1 battery of the Zaporozhsk Coke Oven Works (Zaporozh'ye koksokhimicheskiy zavod) and operated for about two years with satisfactory results. In addition to the described method of direct control of the supply of heat, three other indirect methods were installed and operated in the Soviet Union: 1) a scheme proposed by V.G. Mosyakov. The

Card1/5

68-1-5/22

The Control of Thermal Conditions of Coke Ovens.

control of gas supply is based on the stability of suction at the top of the gas regenerators on the ascending stream and that of the draught on the descending stream. The scheme was installed on the Zaporozhsk Coke Oven Works; its operation is described in Koks i Khimiya, 1958, No.1, pp. 25-29. 2) On the Magnitogorsk Metallurgical Combine (Magnitogorskiy Metallurgicheskiy Kombinat) an automatic control of heating coke ovens is in operation. This is based on the maintenance of a constant suction in the waste flues mains on both sides of the battery and a constant content of oxygen in the combustion products by varying the addition of coke oven gas (ovens are heated with a mixture of coke oven and blast furnace gas). The method is described in this issue, pp. 30-35. 3) On the Zhdanovsk Coke Oven Works (Zhdanov koksokhimicheskiy zavod, the method of controlling the supply of air for combustion proposed by D.A. Amstislavskiy was based on the maintenance of constant suction at the top of the regenerators on the ascending stream. With this method, variations of the coefficient of excess air during the period between reverses are removed. The deficiency of the method is that air supply changes with changes in air temperature and a low accuracy of the control due to low suction

Card2/3

VESEL'MAN, Simon Grigor'yevich; DROBYSHEV, Lev Vasil'yevich; SHERMAN, M.Ya., otv. red.; LIBERMAN, S.S., red. izd-va; ANDREYEV, S.P., tekhn. red.

[Control and regulation of thermal processes in coke chemical plants] Kontrol' i regulirovanie teplovykh protsessov na koksokhimicheskikh zavodakh. Khar'kov, Metallurgizdat, 1962. 378 p. (MIRA 15:3)

(Coke industry)

(Automatic control)

PROCESSES AND PROPERTIES IN IT

Making preparations of vitamin B complex, suitable for parenteral administration. S. N. Komarov and O. S. Sherman, *Proc. Sci. Inst. Vitamin Research U. S. S. R.* 5, No. 1, 98-104 (1941).—A simplified method has been developed for prep. B vitamins (chiefly B₁) from fresh brewers' yeast for parenteral administration. No expts. were made with aq. alc. because of its cost; full attention was given to extn. with hot water. Flavin (B₂) and B₆ do not respond to the same extn. conditions. Yield of B₁ was doubled, whereas yield of I was decreased, by pretreatment of the yeast in presence of CHCl₃ at 37° or by extg. the boiled yeast 24 hrs. at room temp. The optimum conditions for extg. I are pH 4, boiling time about 30 min.; for B₁, pH 5-6, boiling time 2-5 min. Both I and B₁ are about 80% recovered from the aq. ext. by adsorption on gumbrin, a Caucasian bleaching earth, at pH 3.5-4.5 in 10-30 min. Elution with satd. aq. NH₄Cl recovers about 80% of the adsorbed B₁ and is superior to the pyridine method of Greene and Black (*C. A.* 31, 6300⁹). A 2% NaOH soln. was used for elution of I. The B₁ eluate was extd. with 88% PhOH, which was then dild. with EtOH and extd. with H₂O in small portions. The final aq. ext. contained about 60% of the adsorbed B₁. To recover I the 2% NaOH eluate was acidified with HCl, satd. with NaCl and extd. with 88% EtOH. By fractional elution a combined eluate was finally obtained with 0.15 mg. I and 1.5 mg. B₁ per ml. Presence of all the B vitamins in this prepn. was indicated by a bio. assay. J. F. Smith

12

C. O.

PROCESSES AND PROPERTIES INDEX

Vitamin B₁ assays in food products. O. S. Sherman. *Proc. Sci. Inst. Vitamin Research U. S. S. R.* 3, No. 1, 114-23(1941).—Systematic chem. assays were carried out for 10 months to det. the vitamin B₁ content of rye and wheat flours and buckwheat, barley and millet grits. After comparing published extn. methods S. adopted his own method (cold extn. with inorg. acid, aided by trituration). Each ext. was oxidized with alk. ferricyanide to form thiochrome, which was extd. with isobutanol. Fluorescence of the ext. was then measured in ultraviolet light. Results agreed well with biol. assays. The 10-month averages were:

Sample	Grade	B ₁ per g. of dry matter
Rye flour	95%	3.74
Rye flour	87%	3.76
Wheat flour	98%	6.67
Wheat flour	85%	4.37
Wheat flour	72%	2.13
Buckwheat	Grits	6.19
Barley	Grits	3.0
Millet	Cracked	4.86
Millet	Crushed	4.25
Millet	Ground	2.51

Vitamin B₁ proved to be stable (no loss in 7 months) when stored in a dry environment. Julian F. Smith

ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION

SHERMAN, O. S.

SHERMAN, O. S. -- "Vitamin B₁-- methods of its determination, content in Food Products, and Preservation During Culinary Processing." Latvian State U, 1948
(Dissertation for the Degree of Candidate of Chemical Sciences)

SO: Izvestiya Ak. Nauk Latvyskoy SSR, No. 9, Sept., 1955

SHERMAN, O. S.

The vitamin content of raw foods and the effect of cooking.
O. S. Sherman. *Tracy-Vietoria-Nauch-Isledevald*.
Pamphlet, 1956-202 (1953).—Boiling potatoes, cabbage,
and carrots reduces their vitamin B₁ content 8-13%.
During boiling, frying, or braising meat loses 37-60% of
vitamin B₁. Boiling milk or eggs does not reduce their
vitamin B₁ content noticeably. Other foods lose some of
their vitamins in the various hot processes of prepn.
B. S. Levine

USSR

2235. Colorimetric method for the determination of thiamine in industrial preparations. O. S. Sherman and S. M. Kogan. *Tr. Vses. N.-I. Vsesennoy Akad. Nauk, 1963, 4, 230-234; Referativnyi Zh. Khim., 1964, Abstr. No. 43,160*.—In an alkaline medium thiamine (I) reacts with diazotised *p*-aminacetophenone (II) to form a coloured compound, which can be measured absorptiometrically. I is separated from biological materials by shaking an aqueous extract at pH 2 to 4.5 with white Chapanatinsky clay, which adsorbs 90 to 95 per cent. of I. The adsorbate is washed with ethanol and ether and dried at 70° to 80° C. II is diazotised at 0° to 6° C by stirring a solution (0.159 g of II + 2.25 ml of HCl soln., sp. gr. 1.19, + water to 25 ml) with an equal volume of 4.5 per cent. NaNO₂ soln. for 10 min.; four times its vol. of NaNO₂ soln. is then added to the mixture and it is set aside for

A. S. Shiman

20 min. To determine I, 0.5 ml of the diazotised soln. of II is mixed with 2 ml of a soln. containing 2 per cent. of NaOH and 2.88 per cent. of NaHCO_3 and, when the rose colour has disappeared (1 to 1.5 min), the mixture is poured into a cylinder containing 0.1 to 0.2 g of adsorbate (3 to 25 μg of I). 1 ml of water and 3 ml of 0.5 per cent. ethanolic soln. of phenol. After mixing for 20 to 30 min., 2 ml of xylene are added and the mixture is shaken for 1.5 to 2 hr. The intensity of the colour in the xylene layer is compared with standards prepared from cryst. I, the amount of I in these standards increasing in steps of 2 μg . For polyvitamin preparations, the vitamin C is first oxidised. Five tablets are treated with 250 ml of water containing 0.5 ml of 1 per cent. HCl soln. A 1 per cent. KMnO_4 soln. is added to 25 ml of this soln. until a rose colour persists; the soln. is decolorised with 0.3 per cent. H_2O_2 soln., diluted to 50 ml with water and filtered. One ml of the filtrate is used for the analysis. The results agree with those obtained by the thinchrome method.

E. HAYES

2/3

BERESHCHUK, N., red.; OGNEV, O., red.; SHERMAN, R., red.; TURABAYEV, B.,
tekhn. red.

[Famous for their work] Proslavlennye trudem. Alma-Ata, Kazhskoe gos. izd-vo, 1960. 286 p. (MIRA 15:4)
(Kazakhstan—Agriculture)

NASONOV, Vladimir Stepanovich, kand. ekon. nauk; SHERMAN, R.,
red.; NAGIBIN, P., tekhn. red.

[A mechanized center for each state farm] Mekhanizirovan-
nyi zernopunkt - kazhdomu sovkhovu. Alma-Ata, Kazsel'khoz-
giz, 1963. 62 p. (MIRA 17:1)

PAZDOL'SKIY, I. I., SHERMAN, E. D., staryiy nauchnyy sotrudnik, Tbilisskiy LG,
G. I. 1938.

Device for coercive unrolling of the warping rolls on the
SnBLO sizing machine. Tekst. prom. 24 no. 10:45-46 G '64.
(MIRA 12:12)

1. Rukovoditel' otдела khlopka Tbilisskogo nauchno-issledovatel'skogo instituta tekstil'noy i legkoy promyshlennosti Gosudarstvennogo komiteta po legkoy promyshlennosti pri Gosplane SSSR (for Razdol'skiy). 2. Tbilisskiy nauchno-issledovatel'skiy institut tekstil'noy i legkoy promyshlennosti Gosudarstvennogo komiteta po legkoy promyshlennosti pri Gosplane SSSR (for Sherman).

SHERMAN, R. I.

Vornin, M. M. and Sherman, R. I. "Zinc-coating of iron in
a potassium zincate solution," *Izvestiya Kiyevsk. politekh.*
in-ta, Vol VIII, 1948 (on cover: 1949), p. 157-58

SO: U-5241, 17 December 1953, (Letopis ' Zhurnal 'nykh Statey, No. 26, 1949)

POZDNYAKOV, Petr Mikhaylovich, kandidat biologicheskikh nauk; SHERMAN, R.N.,
redaktor; ZLOBIN, M.V., tekhnicheskij redaktor

[Artificial insemination of sheep] Iskusstvennoe osemenenie ovets.
Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 30 p. (MLRA 9:10)
(Sheep breeding)
(Artificial insemination)

TSOI, V.P., red.; SHERMAN, R.^N, red.; NAGIBIN, P., tekhn.red.

[Sugar beets] Sakharnaia svetkla. Izd. 2., dop. i perer.
Alma-Ata, Kazakhskoe gos. izd-vo, 1958. 171 p. (MIRA 12:2)
(Sugar beets)

RASHCHENKO, Ivan Nazarovich; SHERMAN, R.N., red.; OYSTRAKH, V.G.,
tekhn. red.

[Homemade cured food, preserves, and marinades] Domashnie
solen'ia, varen'ia i marinady. Alma-Ata, Kazakhskoe gos. izd-
vo, 1962. 221 p. (MIRA 16:2)
(Canning and preserving)

SAKHAROV, I.; GNEZDILOV, Yu.; SENNIK, V.; MALAKHOV, V.; SHERMAN,
R.N., red.; KUZEMBAYEVA, A., tekhn. red.

[Use of machines and tractors on collective farms] Eksplu-
atatsiia mashinno-traktornogo parka v kolkhozakh. Alma-Ata,
Kazakhskoe gos.izd-vo, 1961. 178 p. (MIRA 16:4)
(Kazakhstan--Agricultural machinery)

ROZENFEL'D, I.L.; RUBINSHTEYN, F.I.; YAKUBOVICH, S.V.; SHERMAN, R.S.;
UVAROV, A.V.

Studying the protective effect of oil paints modified with
chromic acid guanidine. Lakokras.mat.i ikh prim. no.6:11-15
'62. (MIRA 16:1)

(Protective coatings) (Guanidine)

SHERMAN, R. Z., AND YE. KH. GANYUSHINA

"Syvorotochnaya bolezni' (Serum Sickness), Biomedgiz, 1936

Blood cholesterol in malarial children. R. Z. Sherman.
Pediatrics 1940, No. 6, 38-9.—Studies on 34 patients up
to 12 yrs. of age, showed that before therapy, during
apexemia, the cholesterol (Ch) content of blood was 170-180
mg. % in 6 cases and 30-130 mg. % in 28 cases. At the
onset of fever the level was 107.8 mg. %. On treat-
ment with arquinine the level was normal in 10 cases, 130
mg. % in 6 cases and 190-210 mg. % in 3 cases. In 15
cases the level remained low (70-130 mg. %) after treat-
ment. Hypocholesteremia is not always an indication of
the gravity of the disease. F. Laaman

1. *Laetia* sp.

11G

ca

Bilirubinemia in malarial children. R. Z. Sherman.
Pediatrics 1960, No. 6, 30-40. -- Conclusions based on 112
 detns. in 67 children: On the assumption that the normal
 bilirubin content (I) of blood is 0.2-0.6 mg. %, the I is
 higher before therapy, during apyrexia and at the onset of
 an attack. On therapy with *acvichine*, with or without
 plasmoquine, the I decreases but does not descend to nor-
 mal. The degree of bilirubinemia during an attack de-
 pends on the gravity of the latter. On completion of
 therapy, in relapsing cases, the I remains high. The detn.
 of I during malaria is valuable for prognostic purposes.
 T. Llanes

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SHERMAN, R.Z.

PA 46/49T76

USSR/Medicine - Malaria, Therapy
Medicine - Pediatrics

Mar 49

"Particulars of the Clinical Aspects and Treatment of Malaria in Children," R. Z. Sherman, Clinic, Pediatrics Faculty, Second Moscow Med Institute I. V. Stalin, 2 pp

"Sov Med" No 3

X Incidence of malaria in USSR in 1948 was ~~one fourth~~ to one fourth of the 1935 figure. Summarizes, speech on 1948 results and 1949 plans by Prof I. I. Razonin, chief, Main Sanitary Antiepidemic Administration.

46/49T76

USSR/Medicine - Antibiotics

Jun 51

"Treatment of Bacillary Dysentery of Children With Synthomycin," R. Z. Sherman, Dr Med Sci, Ye. V. Prokhorovich, Laureate Stalin Prize, S. A. Mirkina, Moscow, Children's Clinical Hosp, Moscow

"Klin Med" Vol XXIX, No 6, pp 26-32

Synthomycin (synthesized in 1949 at Lab of Exptl Chemotherapy of Infectious Diseases, All-Union Sci Res Chem Phar Inst Imeni S. Ordzhonikidze) is very effective in dysentery of young children which cannot be treated with serum, bacteriophage, or sulfa drugs. (The bacteria develop resistance to sulfa drugs.) Toxicosis is rapidly eliminated by treatment
198T52

USSR/Medicine - Antibiotics (Contd)

Jun 51

with synthomycin, so that a normal diet can be restored. When there is retching, the drug can be administered rectally. Subcutaneous injection is not essential.

SHERMAN, R. Z., DR MED SCI

198T52

YERMOL'YEVA, Z.V.; SHERMAN, R.Z.; RAVICH, B.V.; YAKIMOVA, M.P.

Results of the treatment of dysentery with streptomycin associated with ecmoline. Klin. med., Moskva 31 no.2:26-30 Feb 1953. (CML 24:3)

1. Professor, Doctor Medical Sciences for Sherman; Candidate Biological Sciences for Ravich. 2. Moscow.

USSR/Medicine - Dysentery

SHERMAN, R. Z.

FD 124

Card 1/1

Authors : Yermol'yeva, Z. V.; Sherman, R. Z.; Kassirskaya, E. G.; and Tatarinova, S. D.

Title : The peroral administration of streptomycin with ekmolin in the treatment of chronic dysentery

Periodical : Zhur. mikrobiol. epid. i immun. 4, 27-28, Apr 1954

Abstract : The peroral administration of streptomycin in ekmolin to child and adult patients suffering from chronic dysentery is described in detail. The advantages of using streptomycin in combination with ekmolin are explained. Other unsuccessful methods of treating dysentery are mentioned. No references are given.

Institution : The Chair of Microbiology of the Central Institute for the Advanced Training of Physicians

Submitted : January 15, 1954

SHEVYAKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Oxytetracycline and bacteriophage therapy of dysentery in children.
Antibiotiki 3 no.6:99-102 N-D '58. (MIRA 12:2)

1. Kafedra mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof. Z.V. Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya vrachey i gorodskiy detskiy bol'nitsy No.6 (glavnyy vrach D.G. Naumova) i No.24 (glavnyy vrach Ye.Z. Katkova).

(DYSENTERY, BACILLARY, in inf. & ther.
ther., bacteriophage & oxytetracycline (Rus))
(OXYTETRACYCLINE, ther. use,
dysentery in child., with bacteriophage (Rus))
(BACTERIOPHAGE, ther. use,
dysentery in child., with oxytetracycline (Rus))

SHEVYAKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Synthomycin and bacteriophage treatment of dysentery in children.
Zhur. mikrobiol. epid. i immun. 31 no. 5:101-102 My '60.

(MIRA 13:10)

1. Iz Tsentral'nogo instituta usovershenstvovaniya vrachey i
gorodskikh detskikh bol'nits No. 6 i 24.

(DYSENTERY) (CHLOROMYCETIN) (BACTERIOPHAGE)

SHEVYAKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Use of a combination of levomycetin and bacteriophage in dysenterial infection in children. Antibiotiki 6 no.3:241-243 Mr '61.

(MIRA 14:5)

1. Kafedra mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof. Z.V.Yermol'yeva) Tsentral'nogo instituta usovershenstvovaniya vrachey i 6-ya Gorodskaya detskaya bol'nitsa (glavnyy vrach D.G.Naumova).

(CHLOROMYCETIN)

(BACTERIOPHAGE)

(DYSENTERY)

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATARINOVA, S.D.

Treatment of dysentery in children with tetracycline together with
a bacteriophage. Sov.med. 25 no.7:91-95 J1 '61. (MIRA 15:1)

1. Iz kafedry mikrobiologii (zav. - chlen-korrespondent AMN SSSR
prof. Z.V.Yermol'yeva) Tsentral'nogo instituta usovershenstvovaniya
vrachey (dir. M.D.Kovrigina) i 6-y Gorodskoy detskoy bol'nitsy
(glavnyy vrach D.G.Naumova).
(BACTERIOPHAGE) * (TETRACYCLINE) (DYSENTERY)

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATARINOVA, S.D.

Antibiotics in pediatrics (dysentery, coli-enteritis, pneumonia)
Antibiotiki 7 no.8:749-757 Ag '62. (MIRA 15:9)

(ANTIBIOTICS) (DYSENTERY) (INTESTINES—DISEASES) (PNEUMONIA)

AGABABOVA-SKOBEL'VA, V.V., kand. med. nauk; DOBROKHOTOVA, A.I., prof. [deceased]; ZHUKOVSKIY, M.A., kand. med. nauk; LEBEDEV, D.D., zasl. deyatel' nauki prof.; MARTINSON, Kh.S., kand. med. nauk; MOLCHANOV, V.I., prof.; NOSOV, S.D., prof.; SOBOLEVA, V.D., doktor med. nauk; SOLOV'YEV, V.D., prof.; SUKHAREVA, M.Ye., prof.; SHAPIRO, S.L., kand. med. nauk; SHERMAN, R.Z., doktor med. nauk; SHIRVINDT, B.G., prof.; DOMBROVSKAYA, Yu.F., otv. red.; POTAPOVA, I.N., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Multivolume manual on pediatrics] Mnogotomnoe rukovodstvo po pediatrii. Moskva, Medgiz. Vol.5. [Infectious diseases in children; aerial and droplet infections] Infektsionnye bolezni v detskom vozraste; vozdushno-kapel'nye infektsii. Red. toma S.D.Nosov. 1963. 547 p. (MIRA 16:6)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Skobeleva, Solov'yev). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Dombrovskaya).
(PEDIATRICS) (COMMUNICABLE DISEASES)

SHEVIKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Treatment of dysentery in children with polymyxin and bacteriophage.
Antibiotiki 9 no.3:269-272 Mr '64. (MIRA 17:12)

1. Kafedra mikrobiologii (zav. - deystvitel'nyy chlen AMN SSSR prof.
Z.V.Yermol'yev) TSentral'nogo instituta usovershenstvovaniya vrachey
i 6-ya Gorodskaya detskaya infektsionnaya bol'nitsa (glavnyy vrach
D.G.Naumova), Moskva.

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATARINOVA, S.D.

Treatment of dysentery in children using a combination of
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(MIRA 18:11)

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATARINOVA, S.D.; SHUMOVA, B.I.;
GOL'TSEKER, A.I.; KOLESNIKOVA, Yu.S.

Bacteriophage and tetracycline in the prevention of dysentery
among contact children. Antibiotiki 10 no. 10:948-952
O '65. (MIRA 18:12)

1. Kafedra mikrobiologii (zav. - deystvitel'nyy chlen AMN SSSR
prof. Z.V. Yermol'yeva) Tsentral'nogo instituta usovershenstvo-
vaniya vrachey i Sanitarno-epidemiologicheskoy stantsii (glavnyy
vrach I.F. Krasavin) Kiyevskogo rayona, Moskva. Submitted
Dec. 13, 1963.